

Date 6/19/05 Serial # 10/679,961 Priority Application Date 156012
Your Name M. Lewis Examiner # _____
AU 2222 Phone 272-1838 Room 5A30
In what format would you like your results? Paper is the default. ☒ PAPER ☐ DISK ☐ EMAIL

If submitting more than one search, please prioritize in order of need. Need before 6/21

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: _____

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. _____

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature ☐ Other _____
Secondary Refs ☒ Foreign Patents ☐ _____
Teaching Refs ☐ _____

What is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 88, 95 & 106-114

Problem: See pages 1-4
Solution: " " " N+5

Structure - Memory - Circuit - test - etc.

Focus on claims 106-114

I think US 5,786,629 reads on

Claims 5/24/05

Staff Use Only

Searcher: HARRISON

Searcher Phone: 22511

Searcher Location: ETIC-RICHARD, JEP-1808

Date Searcher Picked Up: 6/22/05

Date Completed: 6/22/05

Searcher Prep/Rev Time: 97

Online Time: 87

Type of Search

Structure (S) _____

Bibliographic ☒

Classification ☐

Fulltext ☒

Patent Family _____

Other DPCI

Vendors

STN ☒

Dialog _____

Questel/Orbit _____

Lexis-Nexis _____

WWW/Internet _____

Other _____

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(FILE 'HOME' ENTERED AT 07:43:04 ON 22 JUN 2005)

FILE 'WPIX, HCAPLUS' ENTERED AT 07:43:30 ON 22 JUN 2005

L1 E US20040070063/PN
1 SEA ABB=ON PLU=ON US2004070063/PN
D TI
D MAX L1

FILE 'STNGUIDE' ENTERED AT 07:47:40 ON 22 JUN 2005

L2 FILE 'WPIX, JAPIO, HCAPLUS' ENTERED AT 07:55:06 ON 22 JUN 2005
1 SEA ABB=ON PLU=ON US5786629/PN
D TI
D MAX

L3 FILE 'DPCI' ENTERED AT 07:56:01 ON 22 JUN 2005

2 SEA ABB=ON PLU=ON US5786629/PN.D
D ALL
D ALL 2
L4 1 SEA ABB=ON PLU=ON US5786629/PN
L5 3 SEA ABB=ON PLU=ON (L3 OR L4)
L6 SEL PLU=ON L5 1- PN.D : 39 TERMS
L7 39 SEA ABB=ON PLU=ON L6/PN
L8 918 SEA ABB=ON PLU=ON L6
L9 949 SEA ABB=ON PLU=ON L8 OR L7
L10 949 SEA ABB=ON PLU=ON L9 OR L5
L11 94 SEA ABB=ON PLU=ON L10 AND STRUCTUR?
L12 18 SEA ABB=ON PLU=ON L10 AND PATH
L13 22 SEA ABB=ON PLU=ON L10 AND DATA
L14 36 SEA ABB=ON PLU=ON L10 AND LINE
L15 5 SEA ABB=ON PLU=ON L10 AND VALUE
L16 107 SEA ABB=ON PLU=ON L10 AND ARRAY?
L17 37 SEA ABB=ON PLU=ON L10 AND CELL
L18 145 SEA ABB=ON PLU=ON L10 AND MEMORY
L19 3 SEA ABB=ON PLU=ON L10 AND THINN#####
L20 15 SEA ABB=ON PLU=ON L10 AND SUBSTRATES
L21 32 SEA ABB=ON PLU=ON L10 AND (ACTIVE OR PASSIVE)
L22 5 SEA ABB=ON PLU=ON L10 AND WAFERS
L23 60 SEA ABB=ON PLU=ON L10 AND BOND####
L24 169 SEA ABB=ON PLU=ON L10 AND (DIE OR DICE OR DIES OR CHIPS OR
MICROCHIPS)
L25 7 SEA ABB=ON PLU=ON L10 AND THICKNESS
L26 52 SEA ABB=ON PLU=ON L10 AND (CIRCUITS OR CIRCUITRY OR MICROCIRC
UIT###)
L27 36 SEA ABB=ON PLU=ON L10 AND (DRAM OR RAM OR SRAM OR FLASH OR
COMPACT OR COMPACTFLASH OR EPROM OR EEPROM)
L28 87 SEA ABB=ON PLU=ON L10 AND (LINES OR PATHS OR CONDUCTORS OR
LEADS OR TRACES OR RUNNERS)
L29 22 SEA ABB=ON PLU=ON L10 AND STOR#####
L30 29 SEA ABB=ON PLU=ON L10 AND TEST#####
L31 30 SEA ABB=ON PLU=ON L10 AND PROGRAM#####
L32 12 SEA ABB=ON PLU=ON L10 AND LOGIC#####
L33 13 SEA ABB=ON PLU=ON L10 AND DEFECT#####
L34 0 SEA ABB=ON PLU=ON L10 AND MAP#####
L35 5 SEA ABB=ON PLU=ON L10 AND REFERENC#####
L36 50 SEA ABB=ON PLU=ON L10 AND CONTROL#####
L37 11 SEA ABB=ON PLU=ON L10 AND GAT####
L38 5 SEA ABB=ON PLU=ON L10 AND FLOAT#####
L39 54 SEA ABB=ON PLU=ON L10 AND COUPL#####
L40 15 SEA ABB=ON PLU=ON L10 AND DETECT#####
L41 3 SEA ABB=ON PLU=ON L10 AND ORDER#####
L42 10 SEA ABB=ON PLU=ON L10 AND DIFFEREN####

→ US 5502333

→ EP 579924

→ WO 9819343

L43 6 SEA ABB=ON PLU=ON L10 AND FUNCTIONAL#####
L44 3 SEA ABB=ON PLU=ON L10 AND SPAR###
L45 15 SEA ABB=ON PLU=ON L10 AND ADDRESS#####
L46 593 SEA ABB=ON PLU=ON (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR
L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR
L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR
L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR
L44 OR L45)
L47 174 SEA ABB=ON PLU=ON L46 AND (MEMORY OR CELL OR STOR#### OR
DATA OR DRAM OR RAM OR SRAM OR FLASH OR COMPACT OR COMPACTFLASH
OR EPROM OR EEPROM)
L48 220 SEA ABB=ON PLU=ON L46 AND (THIN##### OR THICK##### OR
WAFERS OR SUBSTRATES OR STRUCTUR##### OR BOND##### OR
DIMENSION#### OR 3D OR D)
L49 48 SEA ABB=ON PLU=ON L47 AND L48
L50 218 SEA ABB=ON PLU=ON ((L11 OR L12 OR L13 OR L14 OR L15) OR (L19
OR L20 OR L21 OR L22 OR L23) OR (L25 OR L26 OR L27 OR L28 OR
L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR
L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45)) AND
((L16 OR L17 OR L18) OR L24)
L51 214 SEA ABB=ON PLU=ON (L12 OR L13 OR L14 OR L15) OR L17 OR (L19
OR L20 OR L21 OR L22) OR L25 OR (L32 OR L33 OR L34 OR L35) OR
(L37 OR L38) OR (L40 OR L41 OR L42 OR L43 OR L44 OR L45)
L52 121 SEA ABB=ON PLU=ON L47 AND L50
L53 100 SEA ABB=ON PLU=ON L47 AND L51
L54 70 SEA ABB=ON PLU=ON L48 AND L51
L55 123 SEA ABB=ON PLU=ON L50 AND L51
L56 20 SEA ABB=ON PLU=ON L49 AND L50 AND L51 AND L52 AND L53 AND
L54 AND L55
L57 87 SEA ABB=ON PLU=ON L15 OR L19 OR L22 OR L25 OR L35 OR L38 OR
L41 OR L43 OR L44 OR L49 OR L56
L58 94 SEA ABB=ON PLU=ON (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR
L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR
L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR
L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR
L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR
L53 OR L54 OR L55 OR L56 OR L57) AND STRUCTUR?
L59 28 SEA ABB=ON PLU=ON (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR
L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR
L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR
L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR
L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR
L53 OR L54 OR L55 OR L56 OR L57) AND THIN#####
L60 7 SEA ABB=ON PLU=ON (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR
L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR
L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR
L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR
L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR
L53 OR L54 OR L55 OR L56 OR L57) AND THICK#####
L61 60 SEA ABB=ON PLU=ON (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR
L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR
L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR
L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR
L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR
L53 OR L54 OR L55 OR L56 OR L57) AND BOND#####
L62 15 SEA ABB=ON PLU=ON (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR
L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR
L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR
L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR
L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR
L53 OR L54 OR L55 OR L56 OR L57) AND SUBSTRATES
L63 5 SEA ABB=ON PLU=ON (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR
L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR

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L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR
L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR
L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR
L53 OR L54 OR L55 OR L56 OR L57) AND WAFERS
L64 170 SEA ABB=ON PLU=ON (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR
L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR
L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR
L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR
L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR
L53 OR L54 OR L55 OR L56 OR L57) AND (CHIPS OR DIE OR DICE OR
DIES OR MICROCHIP)
L65 112 SEA ABB=ON PLU=ON (L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR
L53 OR L54 OR L55) AND L64
L66 286 SEA ABB=ON PLU=ON L49 OR L54 OR (L56 OR L57 OR L58 OR L59 OR
L60 OR L61 OR L62 OR L63) OR L65 OR L19 OR L20 OR L22 OR L25
OR L35 OR L38 OR L41 OR (L43 OR L44) OR L60 OR L63
L67 286 SEA ABB=ON PLU=ON (L56 OR L57 OR L58 OR L59 OR L60 OR L61 OR
L62 OR L63) OR (L65 OR L66)
L68 SEL PLU=ON L67 1- PRN : 468 TERMS

FILE 'WPIX, JAPIO, HCAPLUS, EPFULL, PCTFULL' ENTERED AT 08:16:23 ON 22
JUN 2005

L69 804 SEA ABB=ON PLU=ON L68
L70 48 SEA ABB=ON PLU=ON L69 AND 2003-2005/PRY
L71 200 SEA ABB=ON PLU=ON L69 AND 2001-2002/PRY
L72 190 SEA ABB=ON PLU=ON L69 AND 1999-2000/PRY
L73 112 SEA ABB=ON PLU=ON L69 AND 1998/PRY
L74 284 SEA ABB=ON PLU=ON L69 AND 1994-1997/PRY
L75 188 SEA ABB=ON PLU=ON L69 AND 1990-1993/PRY
L76 387 SEA ABB=ON PLU=ON L69 NOT (L70 OR L71 OR L72 OR L73)
L77 458 SEA ABB=ON PLU=ON L74 OR L75 OR L76
L78 21 SEA ABB=ON PLU=ON L77 AND THINN#####
L79 87 SEA ABB=ON PLU=ON L77 AND (ETCH##### OR THICK##### OR
THIN##### OR REMOV#####) (5A) (WAFER OR EDGE OR CHIP OR
MICROCHIP OR SUBSTRATE OR DIE OR DICE OR MICROCHIP)
L80 188 SEA ABB=ON PLU=ON L77 AND (SUBSTRATES/TI,AB,CLM OR (2 OR 2ND
OR TWO OR SECOND OR PAIR OR DOUBLE OR BOND####) (5A) (WAFER OR
EDGE OR CHIP OR MICROCHIP OR SUBSTRATE OR DIE OR DICE OR
MICROCHIP))
L81 112 SEA ABB=ON PLU=ON L77 AND STRUCTUR####/TI,AB,CLM
L82 12 SEA ABB=ON PLU=ON L77 AND CONTROLL#####/TI,AB,CLM
L83 2 SEA ABB=ON PLU=ON L77 AND (GAT### OR GATELIN? OR RUNNER)/TI,A
B,CLM
L84 27 SEA ABB=ON PLU=ON L77 AND CONTROL#####/TI,AB,CLM
L85 58 SEA ABB=ON PLU=ON L77 AND (DEFECT##### OR REFERENC#### OR
SENS### OR DETECT##### OR ADDRESS##### OR PROGRAM##### OR
LOGIC####)/TI,AB,CLM
L86 9 SEA ABB=ON PLU=ON L77 AND DATA#####/TI,AB,CLM
L87 15 SEA ABB=ON PLU=ON L77 AND (MEMORY OR STOR#### OR DATA OR
DRAM OR RAM OR SRAM OR FLASH OR COMPACT OR COMPACTFLASH OR
EPROM OR EEPROM OR ROM OR PROM)/TI,AB,CLM AND (ARRAY#### OR
MATRI##### OR ROW## OR COLUMN## OR CELLS OR CELLED)/TI,AB,CLM
L88 46 SEA ABB=ON PLU=ON L77 AND (ELEMENTS OR MODULES)/TI,AB,CLM
L89 13 SEA ABB=ON PLU=ON L77 AND (LINES OR VALUES)/TI,AB,CLM
L90 20 SEA ABB=ON PLU=ON L77 AND (TEST#### OR INSPECT#####)/TI,AB,CL
M
L91 8 SEA ABB=ON PLU=ON L77 AND DEFECT####/TI,AB,CLM
L92 23 SEA ABB=ON PLU=ON L77 AND (SENS### OR DETECT####)/TI,AB,CLM
L93 10 SEA ABB=ON PLU=ON L77 AND PROGRAMM#####/TI,AB,CLM
L94 15 SEA ABB=ON PLU=ON L77 AND (ADDRESS##### OR REGISTER##### OR
ASSIGN#####)/TI,AB,CLM
L95 15 SEA ABB=ON PLU=ON L77 AND LOGIC####/TI,AB,CLM
L96 1 SEA ABB=ON PLU=ON L77 AND REFERENC####/TI,AB,CLM
L97 102 SEA ABB=ON PLU=ON L77 AND (TRACE OR LEADS OR RUNNER OR LINE

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OR PATH OR CONDUCTOR OR STRIP OR STRIPE OR BAR)/TI,AB,CLM

L98 82 SEA ABB=ON PLU=ON (L78 OR L79 OR L80 OR L81 OR L82 OR L83 OR L84 OR L85 OR L86 OR L87 OR L88 OR L89 OR L90 OR L91 OR L92 OR L93 OR L94 OR L95 OR L96) AND L97

L99 21 SEA ABB=ON PLU=ON L78 AND L79

L100 50 SEA ABB=ON PLU=ON L80 AND L81

L101 10 SEA ABB=ON PLU=ON L99 AND L100

L102 16 SEA ABB=ON PLU=ON L85 AND L88

L103 20 SEA ABB=ON PLU=ON L79 AND L80 AND L81

L104 13 SEA ABB=ON PLU=ON L79 AND L80 AND L85

L105 9 SEA ABB=ON PLU=ON L79 AND L80 AND L88

L106 2 SEA ABB=ON PLU=ON L79 AND L81 AND L88

L107 7 SEA ABB=ON PLU=ON L79 AND L81 AND L85

L108 16 SEA ABB=ON PLU=ON L85 AND L88

L109 116 SEA ABB=ON PLU=ON L78 OR (L82 OR L83 OR L84) OR (L86 OR L87) OR (L89 OR L90 OR L91 OR L92 OR L93 OR L94 OR L95 OR L96) OR L99 OR (L101 OR L102 OR L103 OR L104 OR L105 OR L106 OR L107 OR L108)

L110 61 SEA ABB=ON PLU=ON L109 AND (SUBSTRATES OR STRUCTUR##### OR CONTROL#####)/TI,AB,CLM

L111 16 SEA ABB=ON PLU=ON L109 AND (MEMORY CELLS OR LOGIC CIRCUIT###)

L112 6 SEA ABB=ON PLU=ON L110 AND L111

L113 30 SEA ABB=ON PLU=ON L109 AND LINES

L114 1438 SEA ABB=ON PLU=ON (GATELINE OR GATE LINE OR WORDLINE OR WORD LINE) AND DEFECT####(8A)(CELL OR MEMORY OR SPARE)

L115 538300 SEA ABB=ON PLU=ON (GATELINE OR GATE OR WORDLINE OR WORD OR LINE)(9A)(DEFECT#### OR CELL OR MEMORY OR SPARE)

L116 1361 SEA ABB=ON PLU=ON L114 AND L115

L117 137 SEA ABB=ON PLU=ON STRUCTUR####/TI,AB,CLM AND L116

L118 82 SEA ABB=ON PLU=ON L117 AND (CONTROL#### OR WAFERS OR SUBSTRATES)/TI,AB,CLM AND L117

L119 40 SEA ABB=ON PLU=ON L116 AND THINN#####

L120 0 SEA ABB=ON PLU=ON L77 AND L114

L121 30 SEA ABB=ON PLU=ON L77 AND L115

L122 67 SEA ABB=ON PLU=ON L78 OR (L82 OR L83) OR L86 OR L89 OR (L90 OR L91)

L123 39 SEA ABB=ON PLU=ON L93 OR (L94 OR L95 OR L96) OR L101

L124 15 SEA ABB=ON PLU=ON (L105 OR L106 OR L107)

L125 16 SEA ABB=ON PLU=ON (L111 OR L112)

L126 88 SEA ABB=ON PLU=ON L113 OR L119 OR L121

L127 143 SEA ABB=ON PLU=ON L122 OR L123 OR L124 OR L125 OR L126

L128 49 SEA ABB=ON PLU=ON L127 AND (LINE OR GATELIN? OR WORDLIN? OR DEFECT? OR TEST#####)/TI,AB

L129 0 SEA ABB=ON PLU=ON L127 AND LINED/TI,AB

L130 49 SEA ABB=ON PLU=ON (L128 OR L129)

D TI 1-49

L131 40 SEA ABB=ON PLU=ON L127 AND STRUCTUR####/TI,AB,CLM

L132 14 SEA ABB=ON PLU=ON L127 AND THINN####/TI,AB,CLM

L133 82 SEA ABB=ON PLU=ON (L130 OR L131 OR L132)

D TI 1-82

D MAX 1-30

D ALL 31-33

D BIB AB CLM 34-82

L134 94 SEA ABB=ON PLU=ON L77 AND 1996/PRY

L135 85 SEA ABB=ON PLU=ON L134 NOT L133

L136 0 SEA ABB=ON PLU=ON L135 AND L114 AND L115

L137 0 SEA ABB=ON PLU=ON L135 AND L114

L138 5 SEA ABB=ON PLU=ON L135 AND L115

D TI 1-5

D MAX 1-5

L139 80 SEA ABB=ON PLU=ON L135 NOT L138

L140 17 SEA ABB=ON PLU=ON L139 AND STRUCTUR####/TI,AB

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L141 1 SEA ABB=ON PLU=ON L140 AND (THIN#### OR LINE OR GATE OR
CONTROL#### OR TEST#### OR WORD OR WORDLINE OR GATELINE)/TI,
AB